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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/955,291	SEKIZAWA ET AL.
	Examiner Charlotte M Baker	Art Unit 2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 September 2001 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/21/2002.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities: p. 2, ln. 20, change “highly accurately” to “accurately”; p. 5, ln. 26, change “color transforming section” to “color transforming section 1”; p. 7, ln. 7, change “space filter” to “space filter 2”; p. 8, ln. 7, change “whether the it is” to “whether it is”; p. 9, ln. 14, change “by judging by” to “by judging”; p. 10, ln. 6, change “memory element” to “memory element 5”; p. 11, ln. 3, change “in accord” to “in accordance”; p. 11, ln. 8, change “in detail as above” to “in detail above”; p. 12, ln. 10, change “space filter” to “space filter 2”; p. 17, ln. 17, change “in accord” to “in accordance”; p. 17, ln. 25, change “changes will e” to “changes will be”; p. 20, ln. 4, change “greatly reduce” to “greatly reduced”; p. 20, ln. 13, change “gray sale” to “gray scale”; p. 20, ln. 21, change “space filter” to “space filter 2”; p. 20, ln. 24, change “space filter” to “space filter 2”; p. 22, ln. 4, change “image-region recognition” to “image region recognition”.

Appropriate correction is required.

Claim Objections

3. Claim 15 is objected to because of the following informalities: p. 40, ln. 6, change “reads out the mage” to “reads out the image”. Appropriate correction is required.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “first memory section”; “second

memory section”; “page memory”; “first compression section”; “second compression section”; “plurality of image forming apparatus” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4, 6-11, 15, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitations "the image information", "the page memory", and "the region recognition signal". There is insufficient antecedent basis for these limitations in the claim.

8. Claim 2 recites the limitation "the memory section". There is insufficient antecedent basis for this limitation in the claim.

9. Claim 3 recites the limitation "the printing control signal". There is insufficient antecedent basis for this limitation in the claim.

10. Claim 4 recites the limitation "the resolution". There is insufficient antecedent basis for this limitation in the claim.

11. Claim 6 recites the limitations "the first compression section" and "the second compression section". There is insufficient antecedent basis for these limitations in the claim.

12. Claim 7 recites the limitation "the page-by-page data". There is insufficient antecedent basis for this limitation in the claim.

13. Claim 8 recites the limitation "the image mode". There is insufficient antecedent basis for this limitation in the claim.

14. Claim 9 recites the limitation "the color tone". There is insufficient antecedent basis for this limitation in the claim.

15. Claim 10 recites the limitation "the storage unit". There is insufficient antecedent basis for this limitation in the claim.

16. Claim 11 recites the limitations "the parameters" and "the compressed image information". There is insufficient antecedent basis for these limitations in the claim.

17. Claim 15 recites the limitation "the attribute information". There is insufficient antecedent basis for this limitation in the claim.
18. Claim 17 recites the limitation "the setting section". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 1, 3-5, 7-9, 12-13, 15-17, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto (5,420,694).

Regarding claim 1: According to Applicant's drawings (Figs. 1-4, and 6), there is only one memory 5 (image section recognition section); therefore, Examiner is interpreting one memory which includes different sections. Matsumoto discloses a first memory section (Fig. 2, part of image processing section 2) which stores the image information given in the page memory (Fig. 2, page memory 5) (col. 5, ln. 53-63); a region recognition section (Fig. 2, image processing section 2) which creates the region recognition signal (recognition) of the image information simultaneously with storing the information in the first memory section (Fig. 2, page memory 5) (col. 3, ln. 33-50); a second memory section (Fig. 2, part of image processing section 2) which stores the region recognition signal (recognition) created by the region recognition section (Fig. 2, image processing section 2) in the page memory (Fig. 2, page memory 5) (col. 6, ln. 17-22); a recognition signal modifying section (document format signal supplied from control device 3)

which reads out and modifies the region recognition signal stored in the second memory section (Fig. 2, part of image processing section 2) (col. 6, ln. 37-41); and an improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) which reads out the image information stored in the first memory section (Fig. 2, part of image processing section 2) and modifies the image information in accordance with the region recognition signal (recognition) modified by the recognition signal modifying section (document format signal supplied from control device 3) (col. 6, ln. 37-41).

Regarding claim 3: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses wherein the improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) includes an improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) which transforms the region recognition signal (recognition) which the second memory section (Fig. 2, part of image processing section 2) stores into the printing control signal (image recording section 7), and reads out and modifies the image information which the first memory section (Fig. 2, part of image processing section 2) stores in compliance with the printing control signal (col. 6, ln. 37-56).

Regarding claim 4: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses wherein the recognition signal modifying section (document format signal supplied from control device 3) includes a recognition signal modifying section (document format signal supplied from control device 3) which reads out the region recognition signal (recognition) which the second memory section (Fig. 2, part of image processing section 2) stores and modifies the region recognition signal at the resolution different from the resolution of the image information (description of document format signal, col. 5, ln. 36-52 and col. 6, ln. 37-41).

Regarding claim 5: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses wherein the improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) is an output gray-scale (four levels of gray) processing section which reads the image information which the first memory section (Fig. 2, part of image processing section 2) stores and modifies the image information of higher resolution than the resolution of the image information (description of document format signal, col. 5, ln. 36-52) in compliance with the region recognition signal (recognition) which the recognition signal modifying section (Fig. 2, image processing section 2) modified (col. 6, ln. 37-41).

Regarding claim 7: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses wherein the recognition signal modifying section (document format signal supplied from control device 3) creates the page-by-page data (page memory 5 data) of the image information and modifies the region recognition signal read from the second memory section (Fig. 2, part of image processing section 2) in compliance with the page-by-page data (page memory 5 data) (col. 6, ln. 17-22).

Regarding claim 8: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses wherein the recognition signal modifying section (document format signal supplied from control device 3) establishes the image mode including at least character (col. 5, ln. 39-52) or photograph, and modifies the region recognition signal (recognition) read from the second memory section (Fig. 2, part of image processing section 2) in compliance with the established image mode (col. 6, ln. 37-41).

Regarding claim 9: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses wherein the recognition signal modifying section (document format signal supplied

from control device 3) establishes the image mode including character (col. 5, ln. 39-52) or photograph, and modifies the region recognition signal (recognition) read from the second memory section (Fig. 2, part of image processing section 2) in compliance with the established image mode (col. 6, ln. 37-41), and further the improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) reads out the image information which the first memory section (Fig. 2, part of image processing section 2) stores and modifies the color tone of the image information in compliance with the region recognition signal (recognition) modified by the recognition signal modifying section (document format signal supplied from control device 3) (col. 6, ln. 41-45 and ln. 63-68 through col. 7, ln. 1-14).

Regarding claim 12: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses a recognition section (Fig. 2, image processing section 2) which finds the page-by-page feature amount (page:memory 5 data) (col. 6, ln. 17-22) of the image information and recognizing whether the image information is white and black image (monochromatic, col. 5, ln. 39-42) and **or** not in compliance with the feature amount; a modifying section (document format signal supplied from control device 3) which modifies the region recognition signal (recognition) stored in the second memory section (Fig. 2, part of image processing section 2) in compliance with being the black and white image (monochromatic) when the recognition section (Fig. 2, image processing section 2) recognizes the image information as the black and white image (monochromatic) (col. 6, ln. 41-45); and a color modifying section (output controller 21, col. 6, ln. 41-45) which transforms the image information into the black and white image (monochromatic), and modifies and outputting the image (col. 6, ln. 41-45) in compliance with

the region recognition signal (recognition) modified by the modifying section (document format signal supplied from control device 3).

Regarding claim 13: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses a recognition section (Fig. 2, image processing section 2) which finds the page-by-page feature amount of the image information (page memory 5 data) (col. 6, ln. 17-22) and recognizes whether the image information is white and black image (monochromatic, col. 5, ln. 39-42) or not in compliance with the feature amount; a modifying section (document format signal supplied from control device 3) which transforms the region recognition signal (recognition) stored in the second memory section (Fig. 2, part of image processing section 2) into the printing control signal (image recording section 7) when the recognition section (Fig. 2, image processing section 2) recognizes the image information as the black and white image (monochromatic); and a color modifying section (output controller 21, col. 6, ln. 41-45) which transforms the image information into the black and white image (monochromatic), and modifying and outputs the image (col. 6, ln. 41-45) in compliance with the printing control signal (image recording section 7) transformed by the modifying section (document format signal supplied from control device 3).

Regarding claim 15: Matsumoto discloses the first memory section (Fig. 2, part of image processing section 2) which stores the image information given in the page memory (Fig. 2, page memory 5) (col. 5, ln. 53-63); an attribute recognition section (Fig. 2, image processing section 2) which generates the attribute information (recognition) of the image information simultaneously with storing the information in the first memory section (Fig. 2, part of image processing section 2) (col. 3, ln. 33-50); the second memory section (Fig. 2, part of image

processing section 2) which stores the attribute information created by the attribute recognition section (Fig. 2, image processing section 2) in the page memory (Fig. 2, page memory 5) (col. 5, ln. 53-63); a attribute information modifying section (document format signal supplied from control device 3) which reads out and modifies the attribute information stored in the second memory section (Fig. 2, part of image processing section 2) (col. 6, ln. 37-41); and a gray-scale modifying processing section (output controller 21, col. 6, ln. 41-45) which reads out the image information which the first memory section (Fig. 2, part of image processing section 2) stores and modifies the image information in compliance with the attribute information (recognition) which the attribute information modifying section (document format signal supplied from control device 3) modified (col. 6, ln. 37-41).

Regarding claim 16: Matsumoto satisfies all the elements of claim 1. Matsumoto further discloses characterized in that the recognition signal modifying section (document format signal supplied from control device 3) has further a color modifying section (output controller 21, col. 6, ln. 41-45) which transforms either one of the region recognition signal (recognition) or the attribute information into the printing control signal (image recording section 7) and modifies the color of the image information in compliance with the printing control signal (image recording section 7).

Regarding claim 17: Matsumoto satisfies all the elements of claim 16. Matsumoto further discloses a parameter setting section (user interface, col. 4, ln. 21-24) which sets parameters for carrying out a plurality of picture quality control (output copy characteristics) on the printing control signal (image recording section 7); and a processing section (control device 3, col. 4, ln. 49-61) which processes a plurality of image information (density information) in compliance

with the parameters for picture quality control which the setting section established (user interface).

Regarding claim 19: Arguments analogous to those stated in the rejection of claim 1 are applicable. In addition, Matsumoto discloses an image information modifying means (output controller 21, col. 6, ln. 37-41) for reading out the image information which the first storage means stores (Fig. 2, part of image processing section 2) (col. 6, ln. 37-41), and modifying the image information in compliance with the region recognition signal (recognition) which the means for modifying the recognition signal modified (document format signal supplied from control device 3) (col. 6, ln. 37-41).

Regarding claim 20: Arguments analogous to those stated in the rejection of claim 15 are applicable. In addition, Matsumoto discloses an image information modifying means (output controller 21, col. 6, ln. 37-41) for reading out the image information which the first storage means stores (Fig. 2, part of image processing section 2) (col. 6, ln. 37-41), and modifying the image information in compliance with the attribute information modified by the attribute information modifying means (document format signal supplied from control device 3) (col. 6, ln. 37-41).

Regarding claim 21: Matsumoto satisfies all the elements of claim 15. Arguments analogous to those stated in the rejection of claim 16 are applicable.

Regarding claim 22: Matsumoto satisfies all the elements of claim 21. Arguments analogous to those stated in the rejection of claim 17 are applicable.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 2, 6, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Nakayama (2002/0090137).

Regarding claim 2: Matsumoto satisfies all the elements of claim 1. Matsumoto discloses wherein the first memory section (Fig. 2, part of image processing section 2) and stores in the page memory (Fig. 2, page memory 5); and the improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) reads out the image information which the first memory section (Fig. 2, part of image processing section 2) stores, and modifies the image information in compliance with the region recognition signal (recognition) which the recognition signal modifying section (document format signal supplied from control device 3) modified (col. 6, ln. 37-41).

Matsumoto fails to specifically address compression or depression associated with the page memory.

Nakayama discloses includes the memory section which compresses the image information (Fig. 3, encoding section 105); when the image information is depressed (Fig. 3, decoding section 107).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the encoding section 105 at the input of the image processing section 2 of

Matsumoto and the decoding section 107 at the output of image processing section 2 of Matsumoto. By including the encoding section 105 and the decoding section 107, page memory capacity is reduced as taught by Nakayama (p. 4, par. 43).

Regarding claim 6: Matsumoto satisfies all the elements of claim 1. Matsumoto discloses wherein the first memory section (Fig. 2, part of image processing section 2) and stores the image information in the page memory (Fig. 2, page memory 5) (col. 5, ln. 53-63), and further has the second memory section (Fig. 2, part of image processing section 2) and stores the image information in the page memory (Fig. 2, page memory 5) (col. 6, ln. 17-22).

Matsumoto fails to specifically address compression or depression associated with the page memory.

Nakayama discloses has a memory section which compresses the image information by the first compression section (Fig. 3, encoding section 105); which compresses the image information by the second compression section (Fig. 3, encoding section 105) different from the first compression section (Fig. 3, encoding section 105).

Since the image compression section 2 of Matsumoto serves as the first and second memory sections claimed by Applicant, the motivation and modification discussed in the rejection of claim 2 is applicable.

Regarding claim 10: Matsumoto satisfies all the elements of claim 1. Matsumoto discloses wherein the improved picture quality modifying section (output controller 21, col. 6, ln. 37-41) reads out the image information which the first memory section (Fig. 2, part of image processing section 2) stores and the region recognition signal (recognition) modified by the recognition signal modifying section, and stores in the storage unit (Fig. 2, HD 6, col. 7, ln. 16-18) different

from the page memory (Fig. 3, page memory 5), and reads out these, and modifies the image information in compliance with the region recognition signal (recognition) modified by the recognition signal modifying section (document format signal supplied from control device 3) (col. 6, ln. 37-41).

Matsumoto fails to specifically address compression or depression.

Nakayama discloses compresses these (Fig. 3, encoding section 105); further depresses (Fig. 3, decoding section 107).

Regarding claim 11: Matsumoto satisfies all the elements of claim 1. Matsumoto discloses wherein the first memory section (Fig. 2, part of image processing section 2) stores the parameters for improved picture quality (col. 5, ln. 39-54) as recording control signals (document format signal supplied from control device 3 to output controller 21) and the improved picture quality modifying section reads out the image information which the first memory section (Fig. 2, part of image processing section 2) stores and the region recognition signal (recognition) modified by the recognition signal modifying section (document format signal supplied from control device 3), storing them in the storage unit (Fig. 2, HD 6, col. 7, ln. 16-18) different from the page memory (Fig. 2, page memory 5), reading them out (col. 6, ln. 37-39), and modifying the image information in compliance with at least either of the region recognition signal (recognition) **or** the recording control signal (document format signal supplied from control device 3) modified by the recognition signal modifying section (document format signal supplied from control device 3) (col. 6, ln. 37-41).

Matsumoto fails to specifically address compression or depression.

Nakayama discloses includes a memory section which compresses the image information (Fig. 3, encoding section 105); required after depression (Fig. 3, decoding section 107); associated with the compressed image information (output of encoding section 105) in the page memory (Fig. 3, page memory 106); compressing these (Fig. 3, encoding section 105); further depressing (Fig. 3, decoding section 107).

23. Claims 14, 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Nagasawa et al. (2001/0013944).

Regarding claim 14: Matsumoto satisfies all the elements of claim 1. Matsumoto discloses the recognition signal (recognition) modified by the recognition signal modifying section (document format signal supplied from control device 3) and the image information modified by the improved picture quality modifying section (output controller 21, col. 6, ln. 37-41).

Matsumoto fails to specifically address an external interface, or plurality of image forming apparatus.

Nagasawa et al. disclose an external interface (Fig. 1, I/F 2a) and plurality of image forming apparatus (Fig. 1, printer 4-7 and p. 2, par. 32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the I/F 2a taught by Nagasawa et al. The I/F 2a would be connected at the output of image processing section 2 disclosed by the Applicant. This feature would enable multiple image forming apparatuses to be used and the performance of the plurality of image forming apparatuses can be effectively used without lowering the performance of the interface itself (p. 1, par. 15).

Regarding claim 18: Matsumoto satisfies all the elements of claim 16. Matsumoto discloses a color modification changing section (output controller 21, col. 6, ln. 41-45) which corrects at least one of the color characteristics and differential color characteristics in compliance with the printing control signal (image recording section 7).

Matsumoto fails to specifically address plurality of image forming apparatus.

Nagasawa et al. disclose a plurality of image forming apparatus (Fig. 1, printer 4-7 and p. 2, par. 32).

Regarding claim 23: Matsumoto satisfies all the elements of claim 21. Arguments analogous to those stated in the rejection of claim 18 are applicable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M Baker whose telephone number is (703) 306-3456. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB

Kimberly Williams
KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER